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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,951	05/04/2005	Hajime Murakami	043888-0373	9619
20277 7590 01/03/2008 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			EXAMINER CHU, HELEN OK	
			ART UNIT 1795	PAPER NUMBER
			MAIL DATE 01/03/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/533,951

Applicant(s)

MURAKAMI, HAJIME

Examiner

Helen O. Chu

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/3/2007, 4/6/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicants Appeal Brief was filed on October 3, 2007.
2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action.
3. The Examiner is withdrawing the finality of the last Office Action dated January 8, 2007. All rejections of record are withdrawn in view of the newly submitted certified translation of Nobuaki.

Claims Analysis

4. Tables 1-3 indicate four examples of the instantly claimed invention of which ~~can~~ ^{have} ~~include~~ 0wt% of hydrocarbon, ^{compound having a MW of not greater than 310.}

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as anticipated over Nobuaki (JP Publication 3-297063).
6. In regard to claims 1 and 4, the Nobuaki reference discloses a dipping treatment method for carbon rod in a manganese dry cell. The abstract describes paraffin wax consisting of 300-500 molecular weight and 0wt% of hydrocarbon with the molecular weight of not greater than 310.

Claim Rejections - 35 USC § 102/103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 2 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nobuaki (JP Publication 3-297063).

It is noted that claim 2 is a product-by-process claim. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F. 2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Since the hydrocarbon of lower molecular weight is similar to that of the Applicant's, Applicant's process is not given patentable weight in this claim.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nobuaki (JP Publication 3-297063) as applied to claims 1, 2 and 4 above, and further in view of Yukifumi et al. (JP Publication 07-272702) as evidence by Nagasawa et al. (US Patent 4,157,317)

The Nobuaki reference teaches the elements of claims 1, 2 and 4 as discussed in the previous rejection and incorporated herein but does not teach density of the carbon rod. However, the Yukifumi et al. reference teaches that carbon rod of high density is used so that it is hard and cushioning (Paragraph 7) is not an issue. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to choose the instantly claimed value through process optimization, since it has been held that the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable values involve only routine skill in the art. See *In re Boesch*, 205 USPQ 215 (CCPA 1980). Furthermore, as evidence by Nagasawa et al. (US Patent 4,157,317), when the density is less than 1.6 g/cm³ the carbon rod would not have a sufficient strength (Column 5, Lines 5-10). This would lead one of ordinary

skill to try a value greater than 1.6 g/cm^3 or any values sufficient to obtain a carbon rod that would supply sufficient strength.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nobuaki (JP Publication 3-297063) in view of Yukifumi et al. (JP Publication 07-272702) as evidence by Nagasawa et al. (US Patent 4,157,317), as applied to claims 1-4 above, and further in view of Kenichi et al. (JP Publication 05-290820).

The Nobuaki and the Yukifumi et al. reference teaches the elements of claims 1-4 as discussed in the previous rejections and incorporated herein but does not teach a polybutene substance as a sealant. However, the Kenichi et al. reference teaches a polybutene sealant substance would improve the sealing property during performance deterioration or high temperature storage (Abstract). Therefore, it would be obvious to one of ordinary skill at the time the invention was made to incorporate a polybutene sealant as taught by the Kenichi et al. reference into the manganese dry cell as taught by Nobuaki and Yukifumi et al. reference to prevent the manganese dry cell from liquid leakage.

Response to Arguments

Applicant's arguments with respect to claims 1,2, 4 and 5 have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant's arguments filed October 3, 2007 have been fully considered but they are not persuasive.

a. *There is not suggestion in Nobuaki and Yukifumi et al. to substitute a paraffin wax containing a hydrocarbon compound having a molecular weight of not greater than 310 in an amount of not greater than 0.5 wt%, and a carbon rod with a density of 1.50-1.75 g/cm³, is into the positive electrode current collector of Nobuaki.*

b. The Examiner's hypothesis that the higher the density the stronger and/or harder a material would be is incorrect. For example, lead (Pb) is a very dense material (11.35 g/cm³), yet it is a soft and weak metal. Mercury (Hg) (13.59 g/cm³) is denser than lead, yet it is a liquid. Therefore, higher density materials are not inherently stronger and/or harder materials.

Claim 3 is further distinguishable over the combination of Nobuaki and Yukifumi et al. because the teaching of "density" in Yukifumi et al. does not relate to the density of the carbon rod used for a positive current collector, rather it relates to a paper material used for a ring-shaped gasket arranged on the bottom of a cylindrical zinc can. Yukifumi et al. is silent about the density of the carbon rod.

In response to Applicants arguments please consider the following:

a. It is well known to anyone skilled in the art that the higher the density the stronger it would be. Please refer to MPEP 2144 *Sources of Rationale Supporting a Rejection Under 35 U.S.C 103*, "Rational may be in reference, or reasoned from common knowledge in the art, scientific principles, art recognized equivalents, or legal precedent." It is common knowledge if one increased density of a component it would be harder which reinforces the disclosure of Yukifumi et al. Further as evidence by

Nagasawa et al. (US Patent 4,157,317) when density is less than 1.6 g/cm^3 the carbon rod would not have a sufficient strength (Column 5, Lines 5-10). This would lead one of ordinary skill to try a value greater than 1.6 g/cm^3 or any values sufficient to obtain a carbon rod that would supply sufficient strength.

b. This argument is not commensurate with the scope of the rejection. First, the Applicants used the comparison between two different materials. Lead and Mercury are not commensurate with the scope of the claims, the invention or the rejection. The rejection is related to density of the carbon rod in contrast to density of other carbon rods. Let's say for argument purposes use the examples provided by the Applicant. The Applicants did not compare denser mercury to less dense mercury or a denser lead in contrast to less dense lead; thus, these arguments are not commensurate with the scope of the claims. As discussed in the Final Office Action, *"It is well known to anyone skilled in the art that the higher the density the stronger it would be,"* which is relative to the carbon rod, the disclosure of the invention as disclosed by Yukifumi and the Applicants' invention and not relative to all materials of this planet. *"Please refer to MPEP 2144 Sources of Rationale Supporting a Rejection Under 35 U.S. C 103, 'Rational may be in reference, or reasoned from common knowledge in the art, scientific principles, art recognized equivalents, or legal precedent.' It is common knowledge if one increased density of a component it would be harder which reinforces the disclosure of Yukifumi et al. Further as evidence by Nagasawa et al. (US Patent 4,157,317) when density is less than 1.6 g/cm^3 the carbon rod would not have a sufficient strength (Column 5, Lines 5-10). This would lead one of ordinary skill to try a*

value greater than 1.6 g/cm³ or any values sufficient to obtain a carbon rod that would supply sufficient strength”

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen O. Chu whose telephone number is (571) 272-5162. The examiner can normally be reached on Monday-Friday 8am-4:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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HOC


TRACY DOVE
PRIMARY EXAMINER
12/07